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## NOTICE OF ALLOWANCE AND FEE(S) DUE

32112 7590 10/19/2004

INTELLECTUAL PROPERTY LAW OFFICE  
1901 S. BASCOM AVENUE, SUITE 660  
CAMPBELL, CA 95008

EXAMINER	
WEST, LEWIS G	
ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 10/19/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,246	10/01/2001	George G. Chadwick	60607.300501	9305

TITLE OF INVENTION: EXCITER SYSTEM AND METHOD FOR COMMUNICATIONS WITHIN AN ENCLOSED SPACE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$685	\$300	\$985	01/19/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHT. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THE STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (O) AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: Mail

**Mail Stop ISSUE FEE**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
**or Fax (703) 746-4000**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

32112 7590 10/19/2004

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**1901 S. BASCOM AVENUE, SUITE 660**  
**CAMPBELL, CA 95008**

Note: A certificate of mailing can only be used for domestic mailings of Fee(s) Transmittal. This certificate cannot be used for any other accompany papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)

(Signature)

(D)

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nonprovisional	YES	\$685	\$300	\$985	01/19/2005
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EXAMINER	ART UNIT	CLASS-SUBCLASS
WEST, LEWIS G	2682	455-003010

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are enclosed:

4b. Payment of Fee(s):

Issue Fee  
 Publication Fee (No small entity discount permitted)  
 Advance Order - # of Copies \_\_\_\_\_

A check in the amount of the fee(s) is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized to charge the required fee(s), or credit any overpayment. Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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09/909,246	10/01/2001	George G. Chadwick	60607.300501	9305
32112	7590	10/19/2004	EXAMINER	
INTELLECTUAL PROPERTY LAW OFFICE 1901 S. BASCOM AVENUE, SUITE 660 CAMPBELL, CA 95008				WEST, LEWIS G
		ART UNIT		PAPER NUMBER
		2682		

DATE MAILED: 10/19/2004

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 688 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 688 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



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INTELLECTUAL PROPERTY LAW OFFICE 1901 S. BASCOM AVENUE, SUITE 660 CAMPBELL, CA 95008				WEST, LEWIS G
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				2682

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## Notice of Fee Increase on October 1, 2004

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2004, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" because some fees will increase effective October 1, 2004. See Revision of Patent Fees for Fiscal Year 2005; Final Rule, 69 Fed. Reg. 5260-52606 (May 10, 2004).

The current fee schedule is accessible from WEB site (<http://www.uspto.gov/main/howtofees.htm>).

If the fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due" but not the correct amount in view of the fee increase, a "Notice of Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice of Pay Balance of Issue Fee," if the response to the Notice of Allowance is to be filed on or after October 1, 2004 (or mailed with a certificate of mailing on or after October 1, 2004), the issue fee paid should be the fee that is required at the time the fee is paid. See Manual of Patent Examining Procedure (MPEP), Section 1306 (Eighth Edition, Rev. 2, May 2004). If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously-paid issue fee should be paid. See MPEP Section 1308.01.

Effective October 1, 2004, 37 CFR 1.18 is amended by revising paragraphs (a) through (c) to read as set forth below.

### Section 1.18 Patent post allowance (including issue) fees.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

By a small entity (Sec. 1.27(a))..... \$685.00  
By other than a small entity..... \$1,370.00

(b) Issue fee for issuing a design patent:

By a small entity (Sec. 1.27(a))..... \$245.00  
By other than a small entity..... \$490.00

(c) Issue fee for issuing a plant patent:

By a small entity (Sec. 1.27(a))..... \$330.00  
By other than a small entity..... \$660.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/909,246	CHADWICK, GEORGE G.	
	Examiner	Art Unit	
	Lewis G. West	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to application filed July 19, 2001.
2.  The allowed claim(s) is/are 1-20.
3.  The drawings filed on 01 October 2001 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date 6
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Hughes on October 14, 2004.

The application has been amended as follows:

On page 3 of the specification, line 7 the superscript "1" has been removed

On page 3 line 2, after the period -- {"Fields and Waves in Modern Radio", Simon Ramo and John Whinney, pg 386-387, dated May 1956) -- had been added

On page 3 line 10, after the period, the superscript "2" has been removed.

On page 3 line 10, after the period, -- (ON EVANESCENT WAVES, A. Stahlhofen and H. Druxes, Univ. Koblenz, Inst. F. Physik, Rheinau 1, D-56075 Koblenz, Germany) --

On page 3 line 15, after the word mind, the superscript "3 4" has been removed.

On page 3 line 15, after the word mind, -- (Bryndahl, O., "Evanescence waves in optical imaging", in *Progress in Optics*, American Elsevier Publishing Co, New York 1973, pp169-221 and Hupert, J. J., *Appl. Phys.* 6 1975 pp 131-149) -- has been added.

On page 3, lines 25-30, which is the entire footnote section, has been deleted.

On page 4, lines 14-19, "A guide to many experiments involving evanescent waves is provided by PIRA, the "Physics instruction Resource Association" located at <http://www.physics.umd.edu/deptinfo/facilities/lecdem>. This source provide experiments with evanescent waves referring for details to easily accessible literature." has been removed.

On page 11 line 5 "09/09/340218" should be replaced by --09/340,218--

***Allowable Subject Matter***

Claims 1-20 allowed.

The following is an examiner's statement of reasons for allowance:

Claim 1 discloses "an exciter system for inducing evanescent waves within an enclosed structure including a conductive framework, the system comprising: an exciter device situated with the structure and in proximity to a portion of the conductive framework, the exciter being directed toward said portion of the conductive framework; means for exciting said exciter at a frequency so as to induce evanescent waves within the conductive framework."

The prior art discloses many examples of excitors, these excitors being at particular frequencies to induce signals within a conductive framework, such as a buildings electrical wiring or plumbing. The prior art does not show, in combination with these elements, the induction of evanescent waves within the conductive framework, "conductive framework" being defined by the applicant on page 11 line 25-page 12 line 4 of the specification as the conductive framework in a building, which may be a small home or large commercial structure. Furthermore evanescent waves are generally considered to be noise in the prior art. When incorporating all the limitations of the claim, none of the prior art discloses the features as claimed.

Claims 2-9 depend directly or indirectly from allowable base claim 1 and are therefore allowable when incorporating all the limitations of the base claim and any intervening claims.

Claim 10 discloses "A method for inducing evanescent waves in a conductive framework in an enclosed space, comprising: locating a portion of the conductive framework within a wall of the structure, and selecting a segment which is situated approximately equally intermediate at the upper and lower extents of said wall; mounting an exciter at a location opposite said segment, and separated therefrom by a separation distance; and exciting said exciter at a frequency or multiple frequencies within a range, said range being characterized such that the upper extent thereof has a wavelength greater than the cut-off wavelength determined for the particular enclosed space."

The prior art discloses many examples of excitors, these excitors being at particular frequencies to induce signals within a conductive framework, such as a buildings electrical wiring or plumbing. The prior art does not show, in combination with these elements, the induction of evanescent waves within the conductive framework, which are generally considered

to be noise in the prior art, and the claim further describes a specific structural setup for use in a method for producing the evanescent waves in the framework. When incorporating all the limitations of the claim, none of the prior art discloses the features as claimed.

Claim 11-14 depends directly or indirectly from allowable base claim 10 and are therefore allowable when incorporating all the limitations of the base claim and any intervening claims.

Claim 15 discloses "An exciter for use in conjunction with a conductive framework in an enclosed space, comprising: a conductive element having a cross sectional shape of a semicircle, having a rim portion with the open side of said semi-circular element facing a portion of said conductive framework; angular conductors extending from said rim portion to a feed point situated intermediate from said conductive element and said conductive framework; and signal circuitry having one side thereof connected to said feed point and the other side thereof connected to said conductive framework."

The prior art discloses the use of exciter in conjunction with a conductive framework, but does not disclose the particular structure and circuitry as set forth in the claims. When incorporating all the limitations of the claim, none of the prior art discloses the features as claimed.

Claims 16-20 depend directly or indirectly from allowable base claim 15 and are therefore allowable when incorporating all the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schyndel (US 6,336,031) discusses using electrodes for transmitting and receiving using changes in a quasi-static electric field. Pergrande (US 6,512,431) discusses constructing an interconnect to propagate evanescent waves. Noerpol (US 5,416,452) discusses negative effects of evanescent mode waves in a waveguide. Wolters (US 3,400,221) discusses music distribution over house wiring. Kuo (US 4,428,078) and Stancil et al (US 5,994,984) discloses communication distribution in a structure. Beneguelt (US 4,743,916) teaches a radio frequency exciter. Hershey (US 6,329,928) discloses intra-building communication using short-range fields.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 703-308-9298. The examiner can normally be reached on Monday-Thursday 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lewis West  
(703) 308-9298



LEE NGUYEN  
PRIMARY EXAMINER